US Department of Agriculture

U S E A D nterprise rchitecture A

Enterprise Architecture Division

August 7, 2012

Overview

- Objectives
- What is EA?
- Why are we doing EA?
- How will EA Benefit the Organization?
- What is the vision of EA within FEMA?
- How will EA help achieve strategic outcome?
- OMB FEA Reference Models
- Accomplishments
- Future Plans
- The EA Lifecycle
- Summary

Objectives

- The objectives of this presentation are:
  - To provide a high-level understanding of what EA is and is not
  - To understand the EA vision and how the Department plans to achieve its goals
  - To present USDA's approach for achieving an actionable EA
  - To understand how EA can assist in with everyday operations

What Is EA?

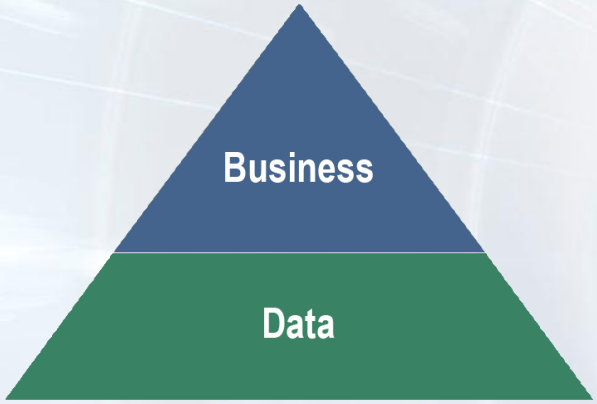
- EA is:
  - EA defines the state of the enterprise today and how it will look tomorrow based on the strategic direction of the enterprise
  - EA consists of 5 integrated layers
    - Business
    - Data
    - Application
    - Technology
    - Cyber security
- EA is NOT:
  - Solely an Information Technology (IT) thing…
  - A system engineering or system development discipline
  - An archiving data base to store engineering and project data EA is a planning vehicle used to assist decision makers in the business transformation of an enterprise

Business Layer

- Addresses the business mission, strategy, line of businesses, organization structure, business process models, business functions, etc
- Includes strategic goals, organization structures, locations, products and services, performance measures, and Exhibit 300

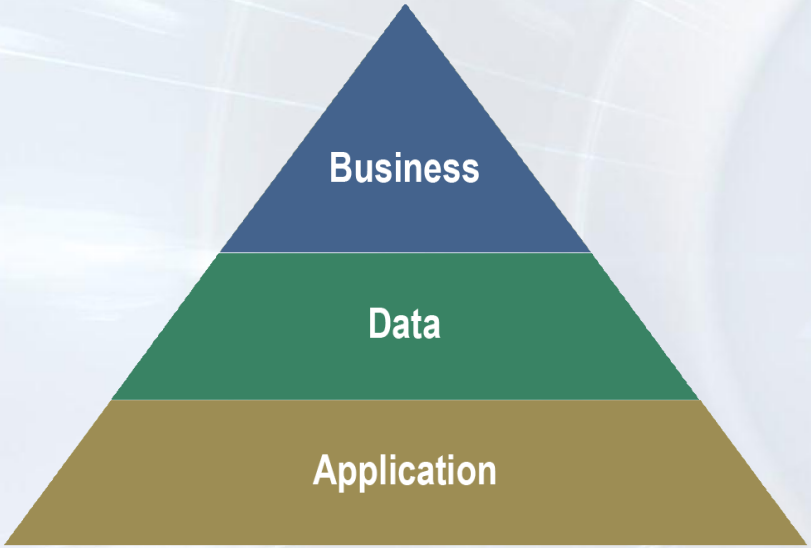
- For Example
  - Business Segment
    - Finance and Acquisition Management
  - Business Function
    - Grants Management
  - Business Process
    - Appropriate Funds

Data Layer



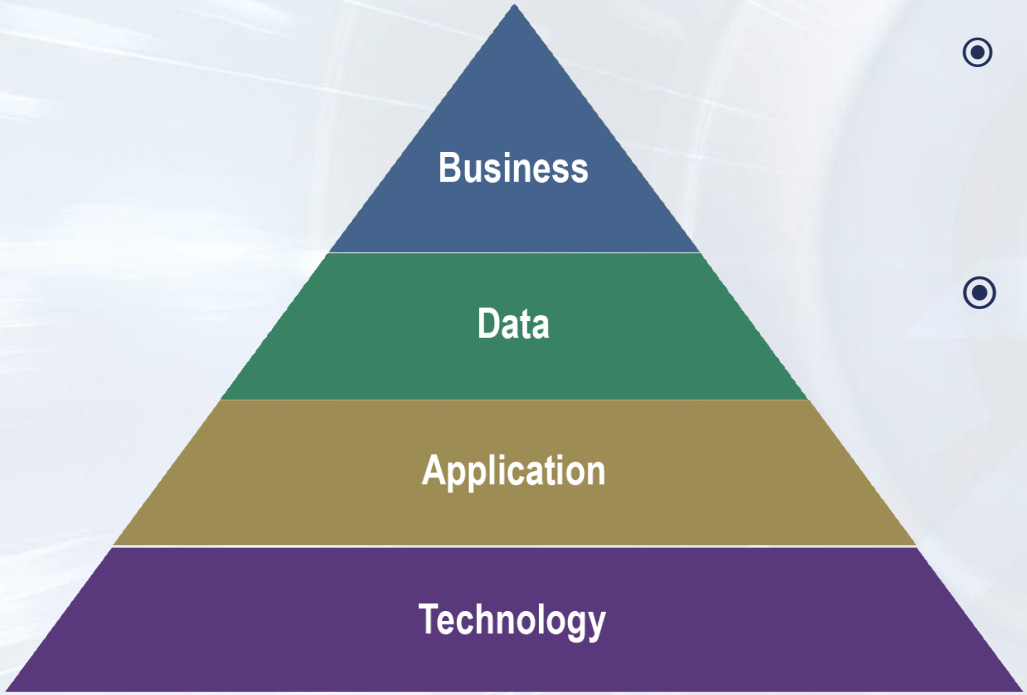
- Defines what information needs to be made available to accomplish the mission, to whom, and how
- Examples from HR Database
  - Subject Area
    - Employee
  - Database Fields
    - Name, SSN, Address

Application Layer



- Focuses on the applications required to support the business mission and information needs of the organization
- Examples:
  - Sharepoint
  - Microsoft Office
  - AgLearn

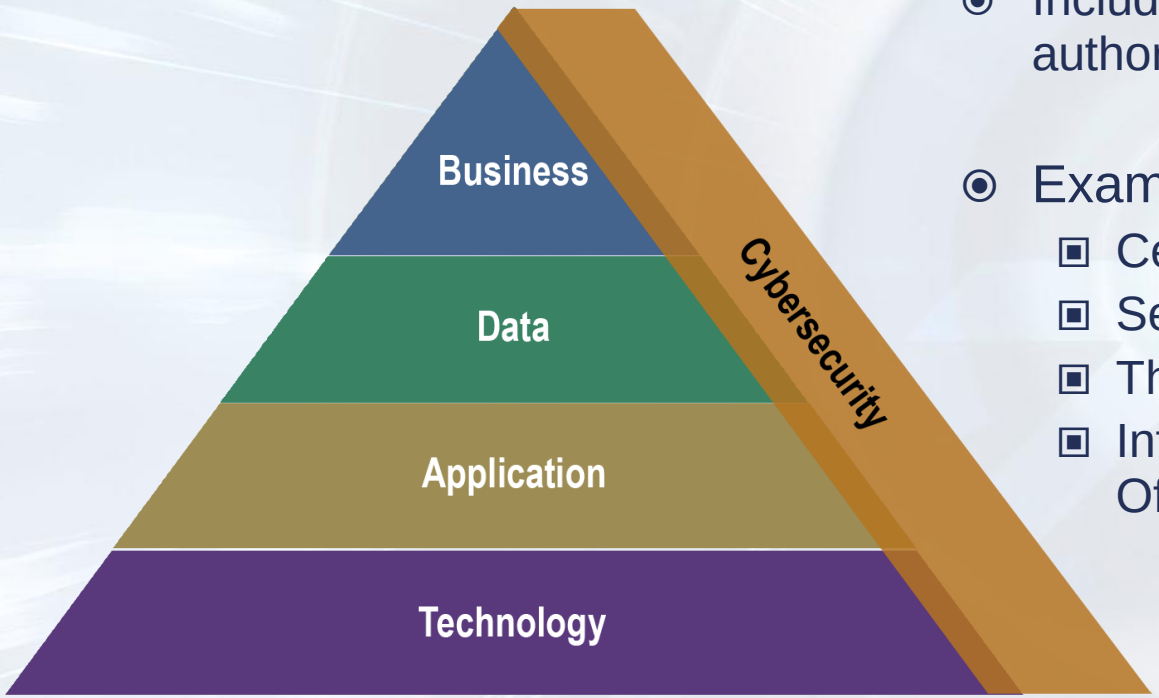
Technology Layer



- Identifies software and hardware used to support applications, information, and business processes
- Consists of servers, network devices, networks, and common COTS such as Web servers

- Examples USDA Technologies:
  - Database
    - Oracle 9i
  - Operating System
    - HP-UX

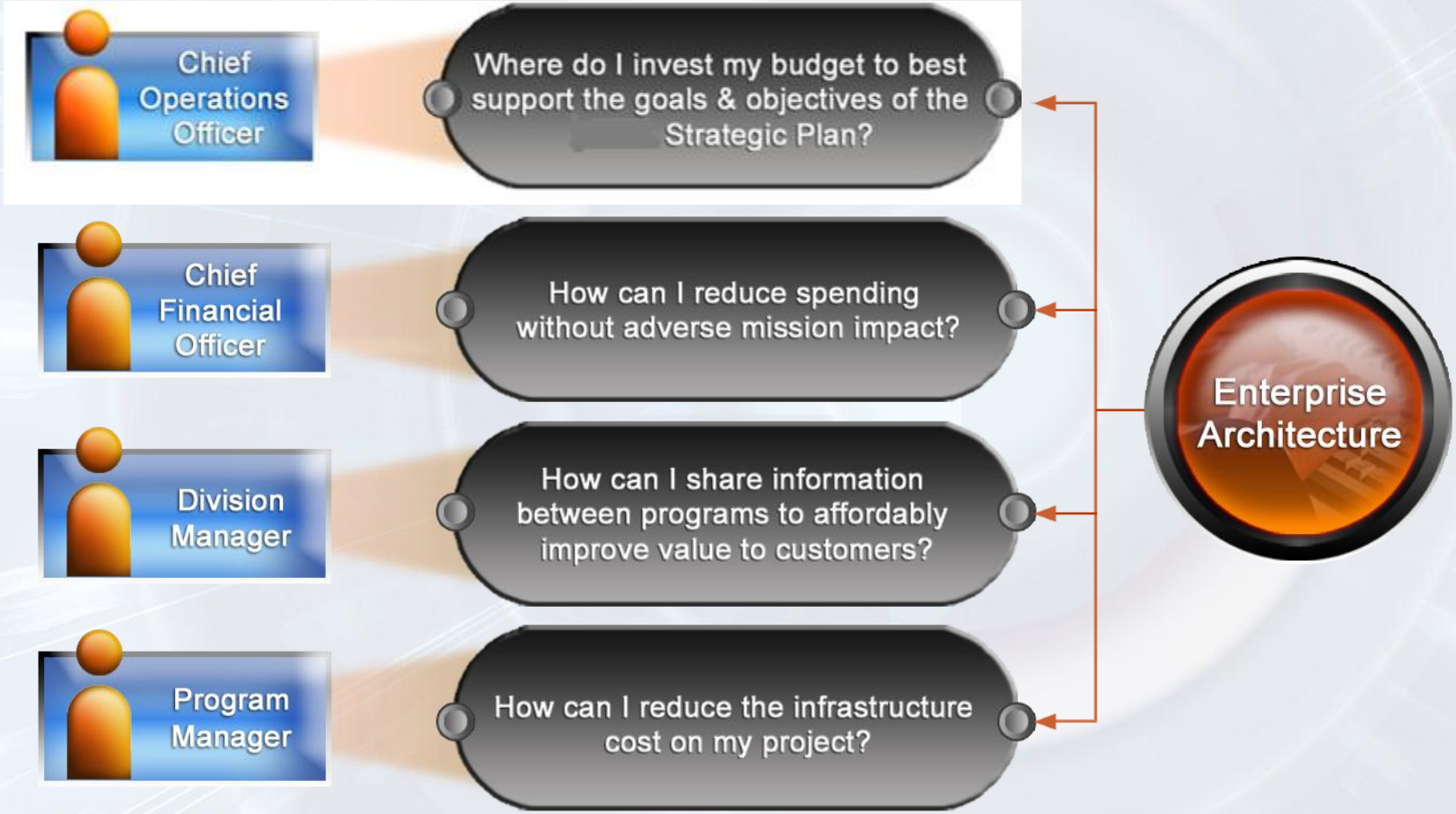
Cyber Security Layer



- Protects information at all levels from business process to the networks
- Includes access control and authorization and support for privacy

- Example
  - Certification and Accreditation
  - Security Products and Standards
  - Threat Matrix
  - Information System Security Officers listing

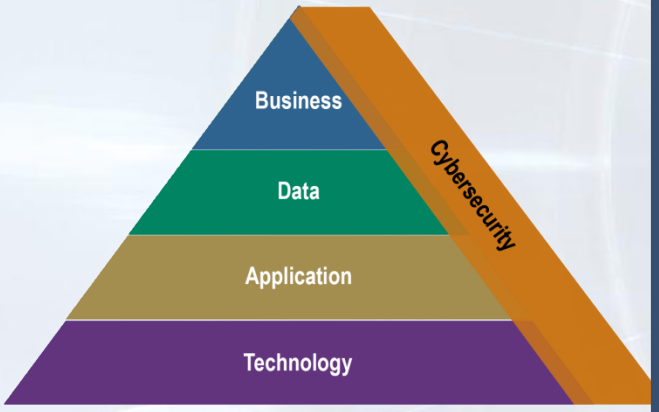
What Is the Vision of EA Within USDA?



How Will EA Help to Achieve Strategic Outcome?

Transformation Strategy
FY10-13

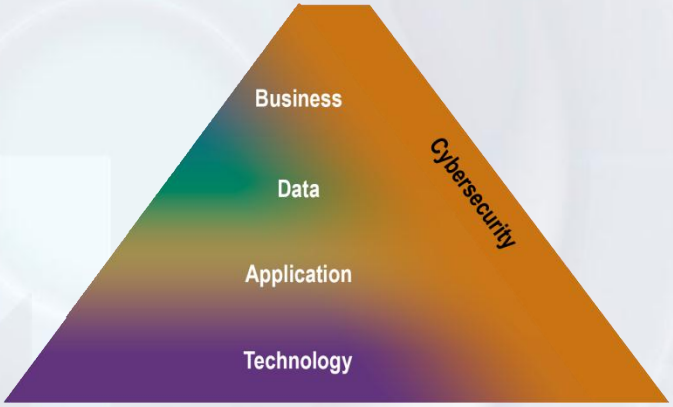
"As-Is"



Inventory of current elements and their relationships

EA Blueprint

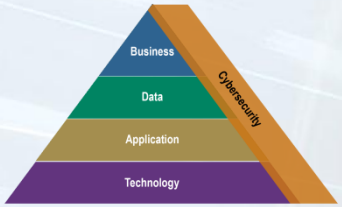
"To-Be"



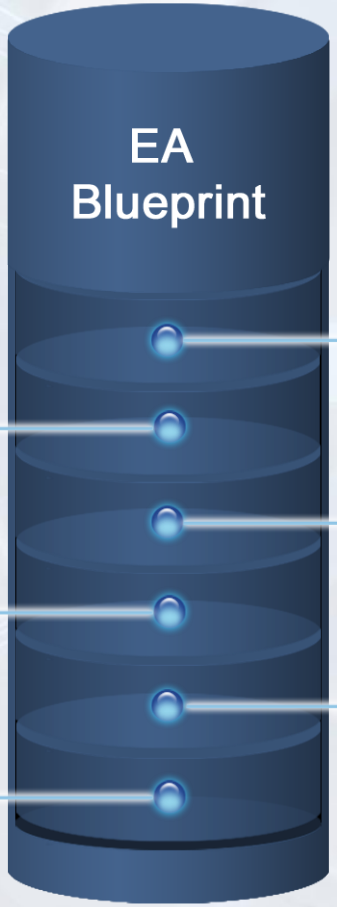
- Greater integration within and between layers
- Reduced cost of data, software, and hardware in solution layers
- Planning tool for maximizing mission performance

How Will EA Help to Achieve Strategic Outcome?

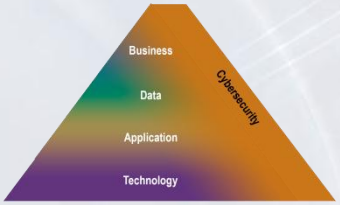
"As-Is"



Transformation Strategy
FY10-13



"To-Be"



Capital Planning
- Capital Planning and Investment Control Reviews
- Exhibit 300

EA Governance
- Establish Waiver Process
- Enterprise Transformation Plan

Execution
- Spend Plan
- Advanced Acquisition Plan
- Acquisition Forms

Strategic Planning and Portfolio Management
- Office of Plans and Programs
- Future Year USDA Strategic Plan

Program Management
- Program Management Office Process
- Program Reviews

Cyber Security
- Policy and Standards
- FISMA Compliance

Why are we doing EA?

- The CIO's main objective is to develop an effective enterprise-wide planning tool that will enable the organization to move forward by:
  - Driving more effective IT Capital Planning Investment, by providing accurate and creditable enterprise wide data to key decision makers
  - Increasing communication channels across enterprise
  - Providing consistent and disciplined use of technology
  - Developing "Enterprise Solutions" and eliminating stovepipe solutions
  - Eliminating IT redundancy
  - Providing the ability to identify gaps between "As-Is" and the "To Be" Architectures

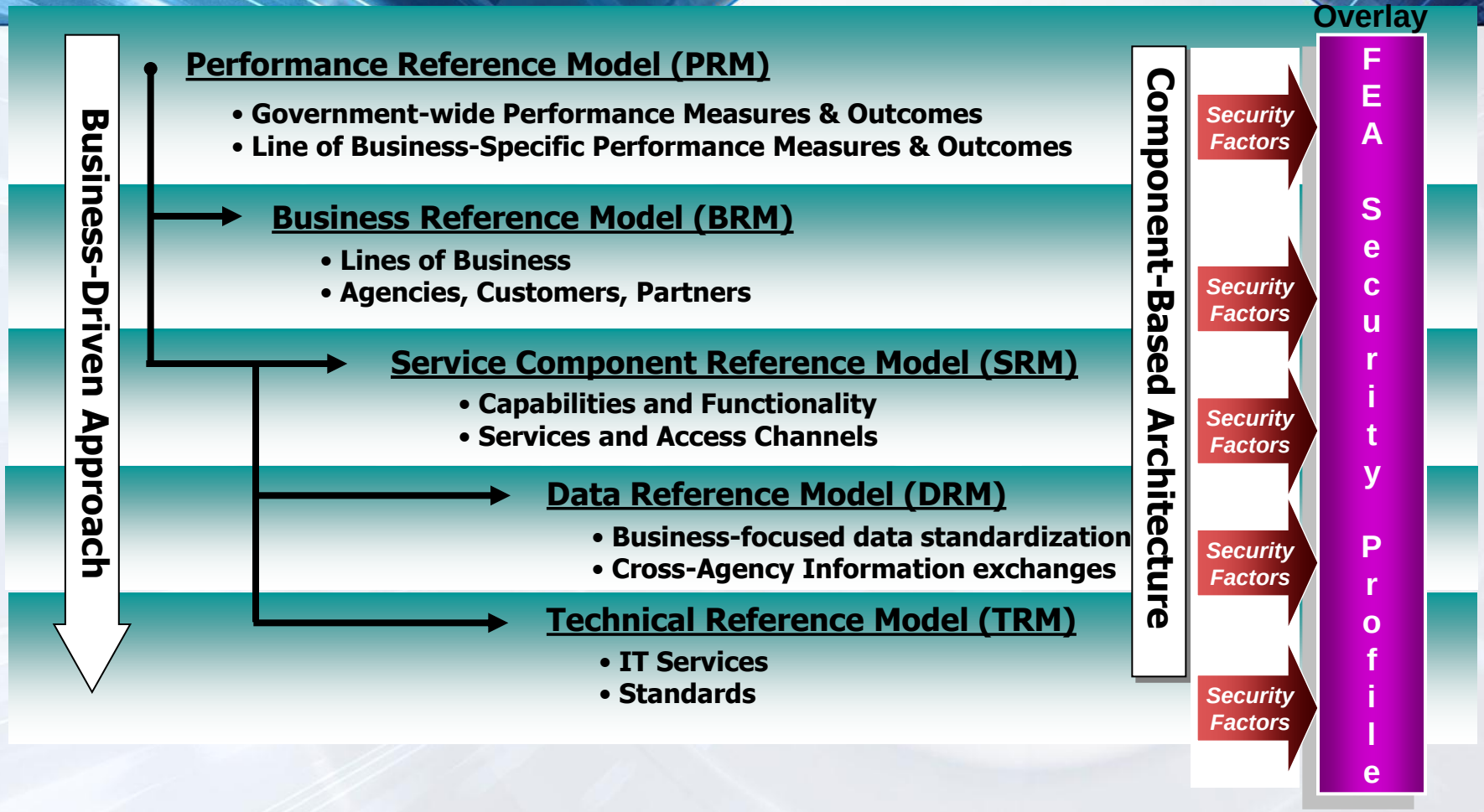
Enterprise Architecture Lifecycle

- The EA Program Lifecycle consists:
  - Development
    - Reference models artifacts are produced and EA governance is defined
    - EA relationships are established and map by using modeling tools
    - Communication strategies are developed
  - Implementation
    - Educating the enterprise on vision of EA and how to use it
    - Communicating process changes
    - Training on EA repositories and tools
  - Operational
    - Formulate Enterprise Solutions
    - Provide guidance, standards, and planning
  - Maintenance
    - Continuous EA Improvement
    - update business processes, information, application, security components and technologies

What are the OMB FEA Reference Models?

- Common classification schema for Federal Enterprise Architecture (FEA) – one language across Federal departments
- Five evolving models (schema)
  - Performance Reference Model
  - Business Reference Model
  - Service Component Reference Model
  - Data Reference Model
  - Technical Reference Model
- Together models create a framework for Federal decision making on IT investments
- Primarily used by Architects to organize enterprise information in a systematic way

Federal Enterprise Architecture



Accomplishments

- Restructured EAD Organization
- Developed EA Program Management Plan
- Updated Communication Plan
- Incorporated Capital Planning Processes
- Established working relationships
  - Office of the Chief Financial Office
  - Office of Communications
  - IT Security Policy Office
- Updated EA Guiding Principles
- Developed EA Governance Structure
- Updated/redesigned EA Website
- Redesigned EA Repository

Future Plans

- Continue to execute EA Program Management Plan
  - Develop and institutionalize EA at USDA according to EA roadmap
- Create a department-wide TRM and standards profile
- Create Departmental / EA Governance
- Develop Business/Performance Architectures
- Develop Information/Data Architecture
- Develop Applications Architecture
- Develop Technology Architecture
- Develop an IT Security Architecture
- Develop Line-of-Sight through the six EA Domains
- Play an active role in Department and IT Strategic Planning

Summary

- EA is a planning tool. The data within EA must be accurate and creditable in order to support decision makers. Therefore, it is everyone's responsibility to ensure that the EA is up-to-date.

- EAD defined a three year EA Program Management Plan and have taken steps in making the USDA EA actionable. However, we have a ways to go in order to fulfill the end goal of EA.

- The return on investment (ROI) of EA is both tangible and intangible. It saves money, time and effort while improving communication across the department.

Enterprise Architecture Division

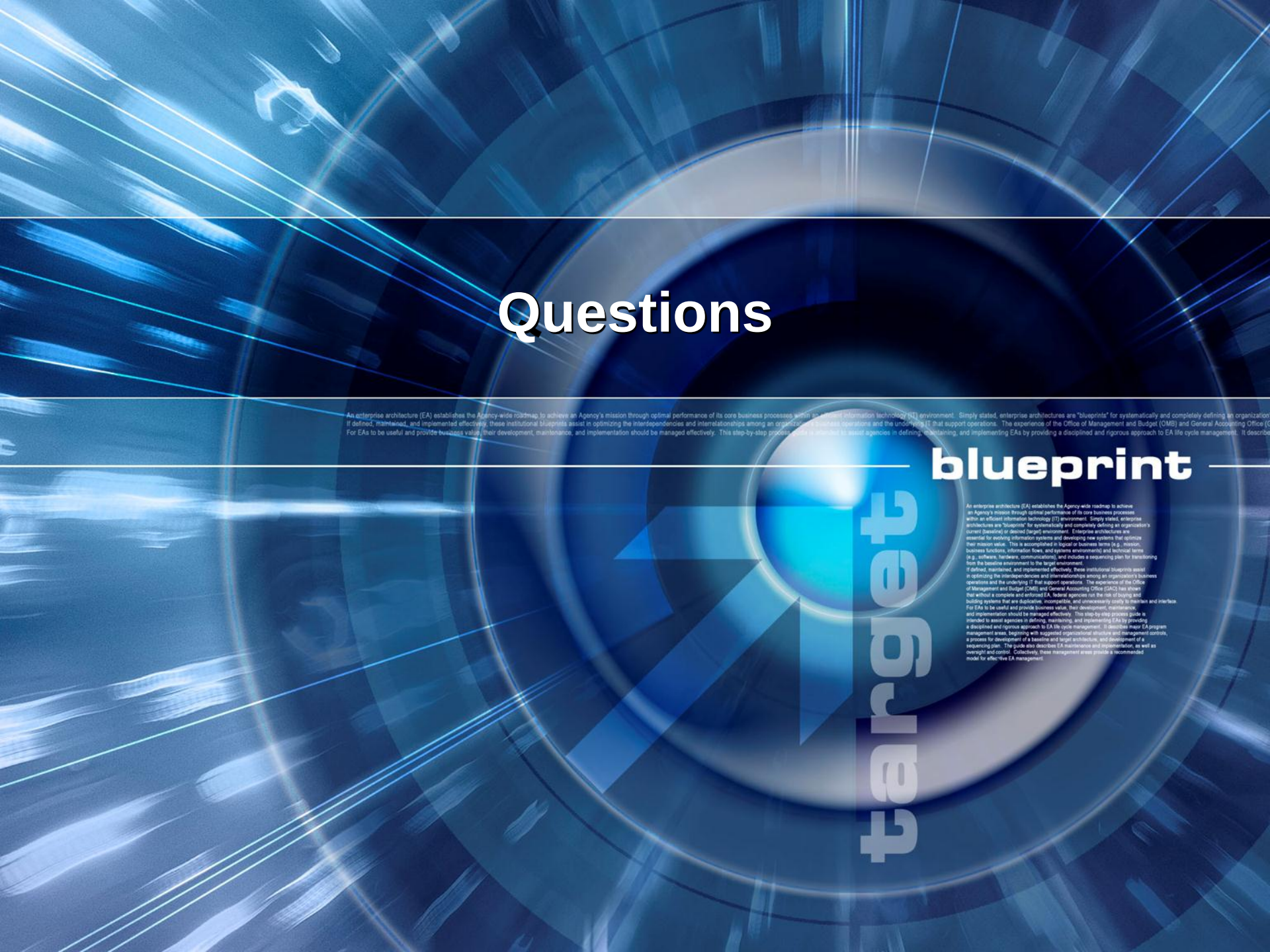
Bobby Jones
EA Director
bobby.jones@usda.gov
202-720-8546

Vacant
Business/Performance Architect
TBD

Dusty Cernak
Data Architect
dusty.cernak@usda.gov
202-720-4070

Vacant
Applications Architect
TBD

David Waddell
Technology Architect
david.waddell@usda.gov
202-205-3735

Greg Kushto
IT Security Architect
gregory.kushto@usda.gov
202-720-8083

Questions